

ABSTRACT

The invention provides a low-pass filter suitably used as a loop filter for a PLL or a DLL that has a filtering characteristic equivalent to that of a conventional one and can be realized in a smaller circuit area. The low-pass filter includes first filtering means (31) for accepting, as an input, an input signal to the low-pass filter and outputting a first voltage; a circuit element (311) included in the first filtering means (31) for allowing a first current to flow in accordance with the first voltage; current generating means (32) for generating a second current at a given rate to the first current; second filtering means (33) for accepting, as an input, the second current and outputting a second voltage; and adding means (34) for adding the first voltage and the second voltage and outputting an output signal of the low-pass filter, in which the second current is set to be smaller than the first current.